THE MARTIN STAR

April, 1943

The Toledo Blade of the Air

G. T. WILLEY, Vice-President and General Manager, Nebraska Plant

Learned the Hard Way

THE word "veteran" has frequently been misused when applied to men in aviation. But in the case of G. T. Willey, it is the only word that can accurately describe him.

Recently assigned to one of the most important posts in the aircraft industry, that of vice-president and general manager of The Glenn L. Martin-Nebraska Company, Mr. Willey can look back upon twenty-five years of continuous experience in the building of airplanes. This experience, and a sound knowledge of engineering, combined with the firm belief that the word "can't" has no place in the scheme of things at the bustling Martin-Nebraska plant, have already brought about an increase in the tempo on the production line.

Tom Willey was born on September 29, 1901, in Birmingham, England, where his father was engaged in the business of making saddles, harness and other equipment for the horse owners in the area. The elder Willey, a skilled craftsman, thought that business might be better elsewhere. Consequently, when young Tom was only four years old, the family moved to Bristol on the southwest coast of the British Isles.

Educated in the Wells-Road Grammar School and the Merchants' Ventures Technical School in Bristol, Tom Willey first came in contact with airplanes in 1918 when he joined the Bristol Airplane Company.

In 1923, confident that his five years with Bristol had equipped him for a more responsible job, Willey joined the Westland Aircraft Works as a designer of passenger and bomber planes. It was while he was with this particular company that an ambition of several years' standing was realized—he went for a ride in an airplane, a De Haviland—9-A.

Still in his twenties, Tom Willey, like so many of his countrymen, was struck with a desire to see how much greener the grass was on the other side of the fence. America offered opportunities, especially in the field of aviation.

"I wanted to see what was on the other side of the blue," the Martin-Nebraska manager recalled recently. "So in 1928, I packed up—barrel and baggage—and sailed for Canada. That was the beginning of a busy two years.

"I arrived in Canada in July, and went to work for the Vickers Company in Montreal as a control designer for flying boats. Early in 1929, I made a hurried trip to England, and four days after my arrival there, received a cablegram asking me to return to Vickers immediately. This I did. But I stayed with them only a short time, for in September of 1929 I joined the Glenn L. Martin Company as a Study Engineer."

In January of 1930, Willey was made group engineer in charge of wings. When the XPBM project got under way, the Company wanted a man to put in charge of all planning. Willey was assigned the job, and stayed with the project as chief draftsman until 1939, when he was made project engineer for the Mars.

It's only natural, then, that one of the biggest pictures hanging in the Nebraska chief's office is an aerial photograph of his pride and joy, the world's largest flying boat.

In 1940, the Martin Company named Willey its executive engineer, and he assumed duties which included the direction of all planning and personnel and general office management. A short time later it became necessary to divorce inspection from the manufacturing branch of airplane building, and Mr. Willey was assigned the important task of directing that particular phase of production. Under his supervision, the department made important strides, and became one of the most efficient divisions in the plant.

In February of this year, the boy who started his career as an employee in one of England's pioneer airplane plants twenty-five years ago, was named vice-president and general manager of the Martin-Nebraska Company. It has been a long, hard road. None of the material gleaned during the past twenty-five years was handed Willey. His knowledge of aircraft and his ability to organize and get 'em flying is the result of continuous study, actual experience on the production line, and an overwhelming desire to "get a job done and get it done right."

So far as the Martin-Nebraska Company is concerned, the new vice-president and general manager has this to say:

"We have only one objective here, and that is to turn out bombers. We won't let anything interfere with that program. In other words, building B-26's in increasing numbers comes first—everything else is secondary. We have a war to win. We realize that fact, and we are doing our part to speed victory. There is no place in our scheme of things for anyone who feels differently."

THE MARTIN STAR

Published Monthly by THE GLENN L. MARTIN COMPANY, Baltimore, Md.

A Message from the Chief

AN aroused nation has turned in wrath against the absentees of war industry. Bitter words are being written and spoken. Harsh actions are being framed. The worst thing about it is that *all* war workers are being hurt in consequence.

Now you know and I know that the great majority of Martin men and women are giving the best they have to produce the best bombers in the largest numbers in the shortest possible time to help end this war. And you know equally well that among us have been people who have been irregular in their work and others who have been slovenly and slow, largely because they didn't care.

We have been letting some of these people go. We have been letting them go because we didn't feel that they were pulling their weight in the boat and they were reflecting on those who did.

We have real heroes and heroines in this Company of ours. We have many, many men and women who have never missed a day since the war began. We have many more who have not missed a day in years (one of our oldest employees has never missed a day in twenty-five years!). We have people here who are making a real sacrifice to do war work—and usually they work the hardest. We have discovered people at work who were really too ill to be there.

I am not going to have those people tarred with the same stick that is being brandished by an outraged nation against the absentee and the laggard. I am not going to have a wedge driven between the real Soldiers of Industry and the Soldiers at Arms simply because some irresponsible elements among us don't take their work seriously.

There is no place among us for the habitual absentees; they do more harm than good. They destroy the effectiveness of the team and they get us a bad name. That doesn't mean that we will cure absenteeism by such strong measures, because there is an irreducible minimum of workers who are absent because they *have* to be absent. There is another group that is absent, not regularly but perhaps too frequently, largely because they are thoughtless.

It is to this latter group that I want to speak now. The chances are that if the finger was pointed at one of these, he or she would be astonished and would reply:

"Who? Me? Why I haven't taken a day off in two months!"

But it is that day, added to those of thousands of others, which causes the curve to rise. Who is an absentee? I'll tell you—it is the man or woman who cannot say honestly:

"If I had been expected to raid Tokyo yesterday, I wouldn't have been able to make it."

Somehow or other, everyone here must be made to realize that his work is vital. That isn't pep-talk; it's the truth, no matter whether it is operating a 3,000-ton press, making a small part, sweeping floors or beating a typewriter. It all adds up to bombers to rain destruction on the Axis and shorten the war that is costing thousands of lives every day. Our job is building bombers, and I don't care what you are doing, if it is only adding up columns of figures, you are building bombers.

We are proud of that great patriotic, thinking majority of regulars who are getting things done. Their work and their devotion to the cause of victory must not be obscured by a selfish, thoughtless minority of irregulars.

Glenn L. Martin

President

April 1943 ★ **EDITORIAL STAFF** ★ **Vol. II No. 3**

Editor: AVERY MCBEE *Managing Editor:* TERRY E. STEPHENSON *Associate Editors:* WADE CARGILE, ARTHUR W. PERKINS

Sports Editor: JOHN CAMPBELL *Photographic Editor:* R. L. ALEXANDER *Art Editor:* RAY HANSEN

Contributors: First shift: Eleanor Akin, Frank Anders, Vera Caffee, Milton Dokulil, Earl Dellafield, Norval Ewing, Ethel Florence, Robert E. Heidel, Walter Hughes, Sally Jones, Lila Jones, Carl Kozlik, Ruby Kreyzik, Ben Kubby, Bessie Lalich, Nina Louderback, Helen Linden, George Martin, Vernon Newberry, Myrle Pantier, Bertha Riesland, L. G. Roberts, Ed Rosenberger, F. D. Slater, Lillian Wickstrom, Audrey Wright, Zellis Zeller. *Second shift:* Virginia Bell, C. L. Blaser, Elizabeth Correll, J. G. Drawbridge, Jessie C. Henely, Frank McGrath, Henry Morgensen, Don Wilds. *Third shift:* Bette Billings, Doris Conley, Gertrude De Kalb, Rita Hollaway, Carl Lamp, Mary Alice McMillian.

Editorial Offices, The Glenn L. Martin-Nebraska Company

. . . the soldier has learned to know its voice and thank God that these birds of death are over him."

The following article appeared in a recent issue of the Dayton Daily News. It is reprinted here in full because it is the soldier's tribute to a gallant fighting ship which is striking, and striking hard, at our enemies all over the world.

Developed early in 1939 the Martin medium bomber, B-26, was the first military plane to be placed in production without first going through a two- or three-year design-to-product period. First real test of their stamina came when three test pilots from Patterson Field were flying three of the planes to Dayton for accelerated service tests.

Running into rain squalls so severe that other ships were grounded the B-26's got through without mishap, although two of the pilots had to make forced landings under most adverse conditions. The other got through with only a few drops of gasoline in the tanks.

These pilots disproved the theories held by some experts that the Martins were too speedy and tricky to be handled safely. Soon fifteen of the planes were at Patterson and from there sent to war maneuvers in the south where both Lieut. Gen. H. H. Arnold, chief of the army air forces, and Assistant Secretary of War for Air Robert A. Lovett expressed satisfaction at their performance.

One of the pilots at Patterson Field who had flown the planes when asked what he thought of the B-26 said: "There is nothing too fast about the plane when it lands. The ship wasn't built for old women to fly, that's all."

Today B-26's are active on all fronts and especially in the Pacific and Alaskan theaters. In the following story, Capt. John C. Kofed, former columnist on the *Miami Daily News* and now public relations officer at headquarters, third bomber command, MacDill Field, Tampa, Fla., writes about the bomber and its feats so far in actual combat.

"There may be differences of opinion among experts as to which bombers are best suited for certain types of missions. There is no difference of opinion as to what a good bomber must be capable of doing. It must hit its targets and get back home, even though the air be filled with flak and enemy fighters. Performance . . . not promise; prowess . . . not publicity, are the payoff points of a great airplane.

"Measured by this rule of thumb, the B-26, which has been the subject of more argument than any other ship of the skies, is a great bomber. General Arnold, who always insisted the B-26 was exactly that, is seeing his contention proved over and over again in the smoke of battle.

"It is true that, because of its tremendous power and short wing spread, this product of the Martin plant is hotter than a two-dollar pistol. The best pilots in the world are at its controls, because it takes a fine pilot to handle it as it should be handled. It isn't a plane for a man who half knows his job. He's got to know it from propellers to empennage or he'll be as uncomfortable as a dude ranch guest on an untamed bronco. If he does know, he finds the B-26 one of the fastest, hardest hitting bombers in all the world.

"The Jap knows this better than anyone else. He can learn nothing here that he has not already been taught by the high explosives that drop from the bomb-bay doors of the B-26.

"He has seen those lightning fast, two-engine devils come roaring through the fog over Kiska. No high level bombing for them. They come in low to make sure nothing will be missed.

"The Nipponese have seen their destroyers smashed and burning, and what was left of the crews rowing desperately away in small boats. They have seen shore installations blasted to matchwood in raids through the worst flying weather imaginable.

"The B-26's take off, too, from the runways on Guadalcanal to meet the threat of invading transports, with guards of cruisers and destroyers and fighter planes. That America could take and hold this vitally important island is, to a great extent, due to the ability of these bombers and the men who fly them.

"The rugged marines, with machine guns and bayonets and grenades, have proved themselves, man for man, better than the soldiers of Hirohito. The infantry is still the queen of battles, for the ground forces must take and hold necessary objectives. But, the foot soldier in Guadalcanal has learned to know the deep-throated hum of the two-engined bomber that blasts open the path for him to travel . . . that brushes away with high explosives the reinforcements and supplies the enemy needs so much. He has learned to know its voice, and thank God that those birds of death are over him.

"The Japanese, though, listen to that voice with apprehension, not only the chunky little men at Kiska and Guadal-

All pictures except of pilots and radio operator official Army Air Corps photos.

The bombardier sights the target, waits eagerly to let loose his load of destruction.

canal, but at Buna and Soputa and Timore, and along the water lanes from Lae and Salamaua. Soldiers crowded into transports and barges, captains of destroyers, shock troops waiting to attach, scan the sky with dread when they hear the throb of the B-26 engines.

"This bomber has an amazing versatility. At Midway and in the Aleutians there were torpedo carrying B-26's. At Soputa they dropped parachute bombs. On the bloody shoreline at Buna they came in low and hard and fast, machine guns blazing, to strafe the already hard-pressed Japanese defenders. The plane's vastly increased fire power makes it a natural for that form of attack.

"These are facts culled from prosaically phrased war department reports. They are not 'may-bes and could-bes.' The B-26 has proved itself, beyond any shadow of doubt, to be one of the greatest medium bombers in the world. It may be touchy, and require an expert's hand on the 'wheel' . . . but when an expert is on the wheel, as has been shown from the Aleutians to the Solomons, this so-called 'Marauder' can out-perform anything the enemy throws at it.

"Over at MacDill Field in Tampa, Brig. Gen. James E. Parker is training the pilots of the third bomber command what to do with the B-26. Since neither human beings or engines are infallible, some accidents are bound to occur.

"But, as General Parker points out, war is neither a safe nor a pleasant game. Since the B-26 has been so enormously effective in combat, his men must learn to handle it with the same confidence that they handle a trainer. They will add, in corners of the globe not yet named, to the amazing record that the B-26 has set in combat operation.

"It's all airplane . . . that cigar-shaped bomber. Ask the men who flew 'em over Kiska and Buna and Guadalcanal."

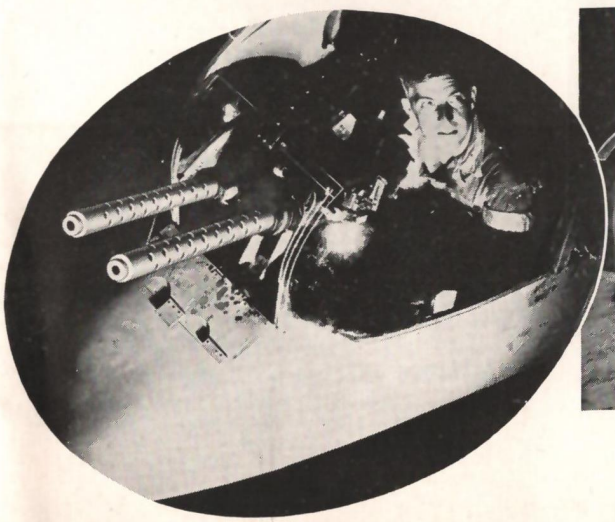
Pilot and co-pilot peer intently into the night, eyes straining, nerves taut, as the target is approached.

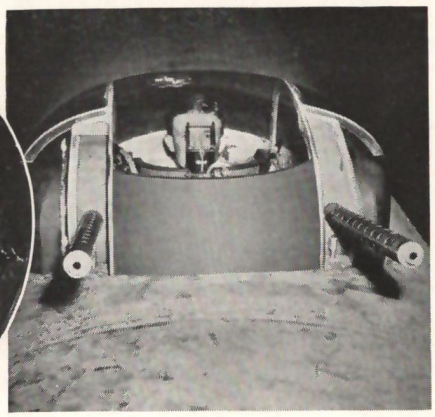
The radio operator keeps vigil on the airwaves, awaiting orders that may change their course or order them back to base.

The navigator carefully plots the flight and must always know where they are.

The turret gunner waits behind his twin engines of death for an enemy to appear.

Sting in the hornet's tail—the rear gunner sights an approaching enemy.





Grem Ricks Are Undoing Naughty Gremlin Deeds

The Gremlins have a new cousin. His name is Grem Rick. But don't be afraid! He won't be up to any mischief. He is the good little boy in a family of black sheep. It is he who arises to all kinds of emergencies and brings damaged ships safely home.

Even though we are only now formally acknowledging his acquaintance, Grem Rick is perhaps a bit older than his "no-good" relatives. He probably has more flying time than the oldest transport pilots! Didn't he fly with the Wright Brothers, Glenn L. Martin, Eddie Rickenbacker, Jimmie Doolittle, and the other fellows who flew with sheer nerve?

Ask the thousands of our flight crews who are piling up tough assignments with two-way flights. Just as the Gremlins are known to jam controls, guns, landing gears, etc., so the Grem Ricks loose controls, guns, and landing gears. They guide pilots through the worst of storms. They are the mortal enemies of flutter Grems, those demoniac little creatures who start the vibrations which sometimes rip wings and tails off in mid air. Perhaps they give lift to a safe forced landing.

The burdens must sometimes seem insurmountable to the overworked Ricks. But they are untiring and work hardest when the fates seem stacked against them.

Perhaps we have used the Grems, with a grin of course, as an alibi for many of our own shortcomings. However, they have become well known throughout the Flying Fraternity, first abroad, later here. They have been held responsible for nearly everything that could and does happen to a plane —from the pilot's leaky fountain pen to a crash landing.

The G bugs didn't stop here. They have flitted into all classes of industry. The ground crew Grems are known as Krudgeons, the Artillery Grems as Whammies. They are in the plants, in offices. If too much metal is milled from an expensive part, its the Grems. Workers could name thousands of jobs the Grems have kicked back for them. The Gremlins have multiplied like rabbits and spread just as fast.

So congratulations to good Grem Rick and more power to him and his kind. — JOHN VOLZ, Labor Control, Army Division.

★ ★ ★

Martineer Jivers

One of Baltimore's popular dance bands boasts three Martineers among its jivers: Richard Busey, trumpeter (Final Assembly), Donald Williams, trombone (Machine Shop), and comely Jean Hastry (Sheet Metal) their songstress.

Photographic Laboratory Playing Essential Role

Pictures tell a story. They can tell it clearly where often hundreds of words would not suffice. That is why the Martin Company, one of the pioneers in the field, maintains a large photographic establishment.

Photographs are used in all contracts for the Army, Navy and commercial firms from the original proposal, when pictures are made from the engineer's designs and blueprints, through the model and mockup stages when all subassemblies, tools and parts are shot, to the completed plane when performance is re-recorded under all sorts of operating conditions.

W. P. ZIMMERMAN

They also play their part in pilots' handbooks, erection and maintenance manuals, educational slides, handbooks and stills for service trainees in the field.

For the plant personnel, they play a key role in bringing the factory to the new employees, both by slides and motion pictures. Photographs also record the history of achievement, of new construction in all phases. Last but not least, they are used in a continuous stream for use by the Public Relations Department for THE STAR and *Mercury*, for national magazines and newspapers and for wire services.

There are also good-will motion pictures for educational institutions as well as about fifteen technical films for use in training courses. For the student there are movies such as "Drop Hammer Technique," "Sheet Metal Fabrication," "Exposition of the Airplane," "Engine Mount Construction" and "B-26, Bombardment Airplane." For the general public there are films about the China Clipper and the Martin Ocean Transport.

To handle the steady stream of requests, this department operates on three shifts. Other personnel than photographers are employed to develop, print and finish.

Ten years ago there was no commercial photographer in the plant although there was a photographic laboratory. William P. Zimmerman was hired and set up his office in a room in A Building. Four years later he had an assistant. Now his staff operates in five rooms with 1,536 square feet of floor space.

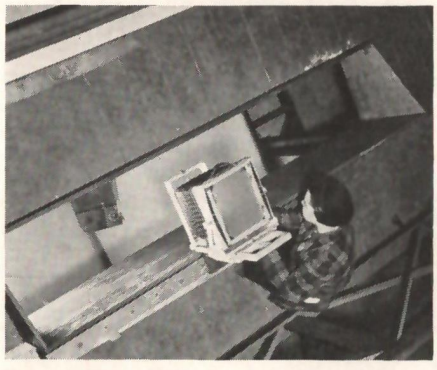
There is a complete dark room; a room for enlarging or projection printing; a room with two complete units for contact printing, processing, washing and drying the photographs; a general photographic room and a film cutting room for motion pictures.

In the laboratory, under which the department operates, there is a large file. The lab library personnel have indexed, prepared for printing, numbered and arranged in envelopes a total of 50,000 negatives over a period of twenty years.

It requires a great deal of equipment to satisfy the demands on the photographers, who wear silver discs with their names and the word "Photographer" to permit them to go wherever necessary to take pictures. They have portable view cameras, copying cameras, a graphlex, speed graphics, contax miniature cameras, Cine-Kodak Special, lantern slide projectors and motion picture projectors.

From each negative an average of from three to nine prints is made—sometimes running as high as 350. An adequate supply, necessitated by the war, of cut film and contact paper has been kept on hand. Flashlight bulbs have been inferior because they are weaker. Most other materials are available, although acetic acid, employed in developing, is more difficult to procure.

Newest development of the department is a special apparatus at the Army Division for taking photographs of individual parts for illustrated parts catalogs. There are two 12-foot square shadow boxes covered with frosted glass. On the bottom there is a battery of fluorescent lights. The article to be photographed, such as a landing gear unit, is disassembled and arranged in proper relationships on top of the box. Photographs are taken from above, giving a perpendicular view. Opaquing is eliminated. Much time is saved by this new method.



PICTURES. *Mary Livingston is caught while working in the photographic laboratory at Army Division.*

Two Ships Shot From Underneath Former Seaman

He's pushing twenty, but already he has lived two lifetimes. Twice Wiley Carter has escaped death when his ships were sunk under him. Twice he has floated on rafts for eight and a half and nine days until picked up.

This Baltimore lad, who looks much older than he is, shipped first when he was fifteen. Aboard the unarmed S.S. *Robin Hood*, a few days before Pearl Harbor, Wiley was reading in his bunk when a torpedo struck. Fourteen of his buddies died in that sinking.

After drifting about several days they spotted what appeared to be a black cross. Thinking it a submarine conning tower, they later discovered it to be the mast of the U.S.S. *Greer*. Finally they were picked up and taken to Bermuda and then flown to New York.

A month later, Wiley, who puts blisters and cables on guns and installs guns and bomb drops in the Army Division, was on a vessel transporting bombers to Persia. Plying waters south by two days from Trinidad, they were again hit, the ship sinking in several minutes. Wiley jumped overboard to pull one semi-conscious lad from the water. Only nineteen were saved, thirty-one being lost. After nine days of drifting, the U.S.S. *Roe* rescued them.

Wiley has spent four and a half years at sea and has visited the Philippines, Honolulu, Panama, South America, South Africa, British West Indies, Netherland West Indies, Cuba and the Far East.

But the two sinkings caused Wiley to suffer a nervous breakdown. However, he did acquire a love for twin-motored airplanes, for it was one of those large planes that spotted him and led to his rescue. Upon being discharged from the Merchant Marine, Wiley was ordered to rest but soon found his way to Martin's to help build those war birds so that they could avenge his dead mates and, perhaps, rescue some other unfortunate seaman adrift in the ocean.

★ ★ ★

Win Promotions

Recently several third shift workers at the Modification Center were given promotions. These promotions were the result of outstanding work. Those who are now doing a more responsible job include Victor Spencer, leader in Surface Controls; Ernest Wollen, leader in the Arsenal, Final Assembly; Arvid Wunderlich, leader in Landing Gear, Final Assembly; and Gerald Vick, sub-foreman in Finishing & Plating.

Grounded 'Chute Jumper Made New Record For Sex

Ruby Warner Baled Out From 25,000 Feet

Mrs. Ruby Warner, Timekeeping, Army Division, third shift, is adept at setting records.

Not content with the breathtaking experience of her first plane ride, she made it also the occasion of her first parachute jump. From there she went on to earn a pilot's license and set a world's record for women by jumping from a height of 25,000 feet. She was the first woman in this country to get a license for rigging parachutes. She is also said to be the only person ever to hit the old Hoover Field in Washington after having jumped from a plane in a parachute.

Her career as a flyer and jumper began in 1930 when she was still Miss Ruby Harrell. While attending a radio broadcast with Charles Purcell, the radio poet, she met Captain Rogers, his radio guest. When Capt. Rogers discovered her intense interest in flying, he invited her to go up with him. She accepted.

She soon started taking flying lessons from Willard Warner, a young man who was flying for the 104th Observation Squadron. Before long she became Mrs. Warner. For six years they toured the Eastern states giving flying and jumping exhibitions. Mrs. Warner not only contributed to the fame of the circus but made quite a name for herself by establishing numerous records.

On Preakness Day, 1937, the young jumper's 'schute collapsed and she broke her back in the fall. She recovered and had made four more jumps when her doctor caught up with her and forbade her to jump again.

★ ★ ★

She'll Wed Soon

Betty Schmidt, secretary to Safety Engineer H. W. Strohm, is preparing for a trip to the altar April 29. Miss Schmidt will become the wife of James Robert Kovarik, a medical student at the University of Nebraska. Both are residents of Omaha. Soon after the wedding, the future Mrs. Kovarik will return to work at the Martin-Nebraska plant.

★ ★ ★

Gals Entertain

About thirty-five girls from the Purchasing Department, who are members of the USO, entertained at a dance for second lieutenants recently. The affair was held at the Central Club, where music was furnished by a "juke box."

Payroll Machines Almost Think on an Intricate Job

The pleasant task of picking up a pay envelope seems simple enough. To compute the salary of Martin's thousands of workers, however, Tabulating not only handles 150,000 or more cards every day, but takes them through a number of different operations. A mammoth job? Yes,

A machine with sense

but thanks to the "miracle machines," a job which is performed with the highest degree of efficiency.

The ten machines with their various attachments add, subtract, multiply, sort, duplicate, and accomplish many other tedious and otherwise time-consuming jobs. Pencil markings made by timekeepers on the cards constitute the only manual labor connected with making out the payroll.

The Key Punch prepares the employees' original master cards, transferring from a written record to punched holes the name, social security number, shift, and rate. By means of the Reproducer, daily job time cards are reproduced from the master cards.

The Interpreter literally "translates" punched holes into printed words. Thus an employee's name, rate, shift, etc., which are originally indicated by punches, will be printed in the upper left-hand corner of his card.

Mark-Sensing is the name of the mechanical device which actually "senses" the timekeepers' pencil marks and punches corresponding holes in the cards. The Martin Company was the first to experiment with this machine, which does the work of about eighty key punch operators.

In addition to computing payroll, the machines make reports for various people, such as the Detail Labor Control, Army and Navy auditors, Personnel, etc.

At the head of this very big job is W. P. Moon, general supervisor of Tabulating. Working with him are W. W. Wood, first shift machine supervisor; Leroy Shauck, supervisor of payroll records; and J. R. Miller, machine supervisor on second shift.

★ ★ ★

Church Mural Specialist

An artist with several extensive church paintings to his credit is John Petney, Jr., Finishing & Plating, Army Division, third shift. Petney studied art for six years, has been called to numerous towns on the record of his first decoration project, at St. Michael's Greek Orthodox Church in his native Portage, Pa. In Elizabeth, N. J., his masterpiece was the painting of saints and sacred events for the main altar and three small altars in the St. Nicholas' Russian Church there.

FELLOWSHIP CHURCH WILL BE OPENED EASTER SUNDAY

It's not a very large church—just 60 feet long and a bit over 25 feet wide. But it represents the heartfelt industry of its congregation.

For a small band, a majority Martin employees, have built it as a labor of love. The Fellowship Church will open Easter Sunday, on Eastern Avenue and Bowley's Quarters Road, a quarter-mile from the Army Division.

Daniel G. Blake, night foreman of the Wood Shop, is chairman of the building committee. Nearly every day he joins with the pastor, the Rev. Otto Lehmann, a former Wood Shop employee, from noon until 4 P. M. in construction of the edifice.

Already 2,000 feet of flooring has been laid down—all of it donated by the Martin Company. The sturdy pine comes from prop boxes. Scaffolding and repair have been additional uses for the prop boxes.

"It's funny how good the Lord has been to us," Mr. Blake remarked. "Last January the earth was frozen solid. The footings or concrete foundations had to be poured. A warm rain came which softened the ground for several days. The concrete was poured and hardened very well before the earth froze over again."

For the past three years the Fellowship congregation has been holding its services on the second floor of a general store in Chase. The Sunday School has been meeting in the dormitory lounge of the No. 1 Trailer camp.

The cornerstone will be laid March 28. The formal dedication will be May 2. Much credit for its construction goes to the 100 members of the congregation, and, in particular, to Royal Smythe, Body foreman on third shift; Frank Koks, Surface and Floats, second shift; and John Stapp, Surface and Floats.

—JEFFERSON MCBEE.

GETS CAUGHT IN OWN EFFICIENCY

Captain G. M. Sweet, head of the Army Division's Protection Department, was caught in some of his own efficiency when he attempted to cross the apron during a recent test blackout. Dressed in civilian clothes and minus a civilian defense arm band, he started to walk across the ramp while the red signal was on.

Out of the darkness came the greeting: "Hey, buddy, where do you think you're going?"

Three different times he was stopped and three times he obediently produced his credentials. Needless to say, Captain Sweet is completely satisfied with the effectiveness of the Civilian Defense organization.

★ ★ ★

SHE'S NO KNITTER

Miss Minnie Jean Reece, 61-year-old student in the Martin School of Inspection, has a unique reason for being there. When asked why she wanted to go into war work, Miss Reece replied: "I wanted to do war work and I just don't like to knit." Miss Reece, a former teacher of handicraft in Asheville, N.C., would be a very excellent knitter, if the idea appealed to her. President Roosevelt once saw some of her handicraft work and liked it so much he requested a piece for the White House.

"CENTRAL'S" GIFT B-26 RECHRISTENED "MY POP"

Son of One Donor Writes of Discovering Ship in Africa

With appropriate ceremonies, a Marauder purchased with money contributed by employees of the New York Central Railroad System was dedicated last year and turned over to the Army.

Recently the railroading father of a soldier now in Africa received a letter from his son who had been thrilled when the "Central's" Marauder showed up in that war theater. A part of the letter is reprinted here:

"My Pop" at the Airport

"Dear Pop:

"This letter is especially for you. To begin with, by now you must know that I am somewhere in Northern Africa. Everything here is O.K. and am feeling fine. Tonight, Christmas Eve, am writing this letter and just picture everything that is taking place home—the meal Mom prepared, kolbasy, boracht, piregi, etc., boy, how I wish I could be there for just this one holiday.

"Included in this letter is a small photo of which you ought to be pretty proud. Do you remember telling me before I left home about a plane you chipped in for along with your fellow workers on the New York Central. Well, here is a snapshot of a part of it (the part with the sign by whom the plane was bought by). You must realize the censor would not allow a full view picture to be mailed so you will have to be satisfied with just this for the present. I came across this plane a few days ago when I was on a job. You can imagine the way I felt.

"Pop, if at any time you were ever near me it was then. I immediately went over and touched it and from that time on the plane was rechristened 'My Pop' by me. The plane may still bear the sign 'Gift of the Employees of this Railroad,' but in my heart it will always be called 'My Pop.' I am including this picture and I told the boys I work with, my Pop will be the proudest man in the world and I bet the men he works with will not be able to talk to him for at least a week.

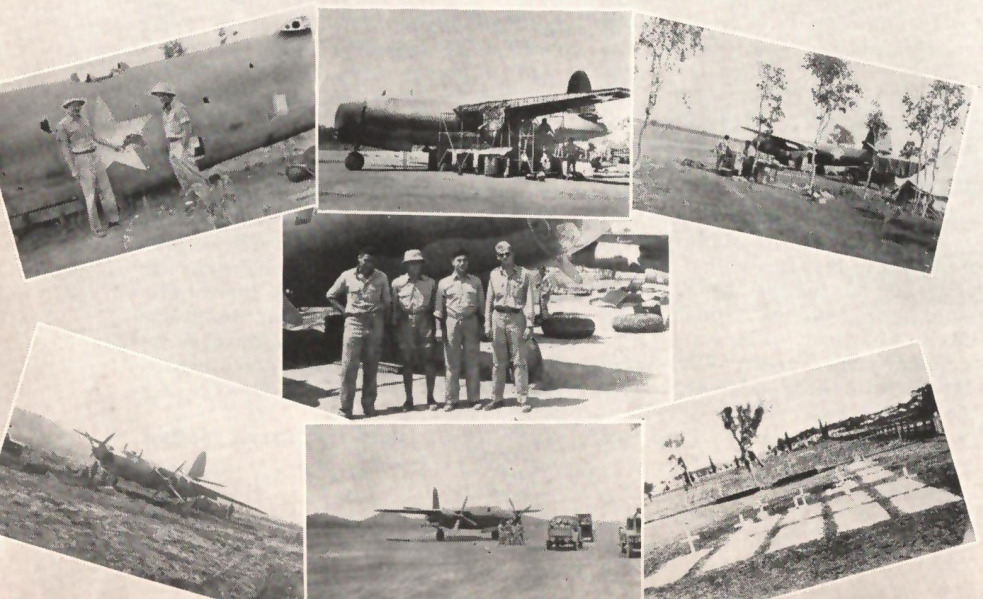
"I can just picture the buttons on your vest popping when you show it to the men you work with. Don't forget to tell them your son Johnny felt and patted it and ask them if they can boast the same of their sons—Ha, ha. Believe me, Pop, it's a beauty and some piece of machinery. Just to make sure you receive this picture will mail another one to Jean in a couple of days. In this way you should be able to receive at least one if not both.

"Dad, that's about all the news. Everything is O.K. and am fine and well and there should be absolutely no reason for you or Mother to worry about me.

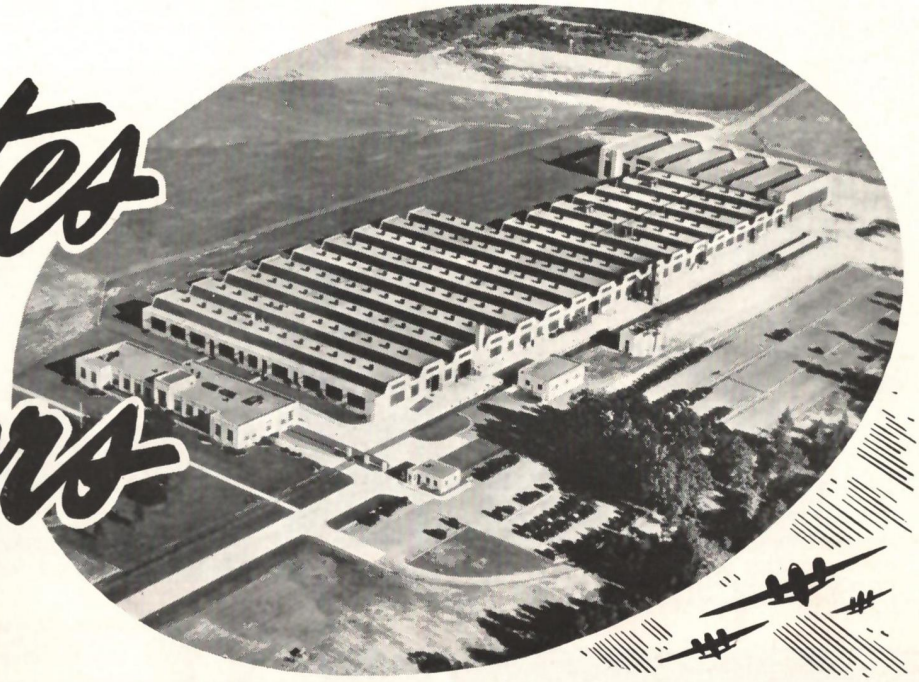
Love to everyone,

Johnny"

DOWN UNDER. *These photos of the B-26 were taken in the Southwest Pacific by Gus Vardoulakis, one of the nine Martin men who recently returned from Australia. Top, left to right: In spite of the huge holes which damaged it, this Marauder was repaired and went back into service; a complete new wing and motor were installed in the field on this one, taken at Townsville, Australia; awaiting action at Ant Hill Plain in Northern Australia. Center: This B-26 has been on twenty bombing missions (indicated by the bombs under pilot's window), and was severely damaged in action. The figures in center are Gus Vardoulakis and Jacob Strauss, Martin service men. Master Sergeant Fuller is at left and Lieutenant Siburn, pilot of the ship, at right. Bottom row: A B-26 damaged while taking off from Port Moresby air field during a Jap raid; servicing a Marauder at Moresby and a graveyard near Brisbane, where are buried two Martin men, Henry Lyskikowski and Edward Marshall.*



Box Kites to Bombers



CHAPTER XIV

The Glenn L. Martin Company's move to the Atlantic Coast was not achieved without a few headaches. Glenn Martin didn't want just another plant site; his specifications were exacting.

He wanted both an airport and a good water facility at the plant. He wanted to be near Washington, the wellspring of his contracts with the Government. He wanted to be in an industrial center with a good supply of craftsmen, yet he wanted enough elbow room for the future he saw for his company. He wanted a moderate climate, with year-round flying weather. And he wanted good railroad connections at his plant.

Along the seaboard the pioneer ranged eyes roving for his ideal site. He settled upon the Chesapeake Bay country. Word got around. He was the center of attention. He was escorted to this airport and that while gesticulating officials expounded their virtues. He could have anything—for a fancy price.

Then, one day, Martin found his spot near Baltimore. It was where the broad estuary of Middle River reached a narrow finger until it almost touched the main line of the Pennsylvania Railroad, twelve miles out of the Maryland metropolis.

Martin marked the spot carefully on a road map, handed it to W. A. Crenning, the company purchasing agent, with a laconic instruction to "get us a thousand or so acres there." Then the wily Martin never went near the place again. He was much in evidence around Maryland, followed by newshawks, while Crenning was quietly buying up the land—1,260 acres of it. Land sharks never got a look-in, and the price was favorable.

"Why did you buy so much property?" Martin was asked.

"We will need it some day," he replied. "Besides, we hope that the day will come when we will have a thriving residential community here."

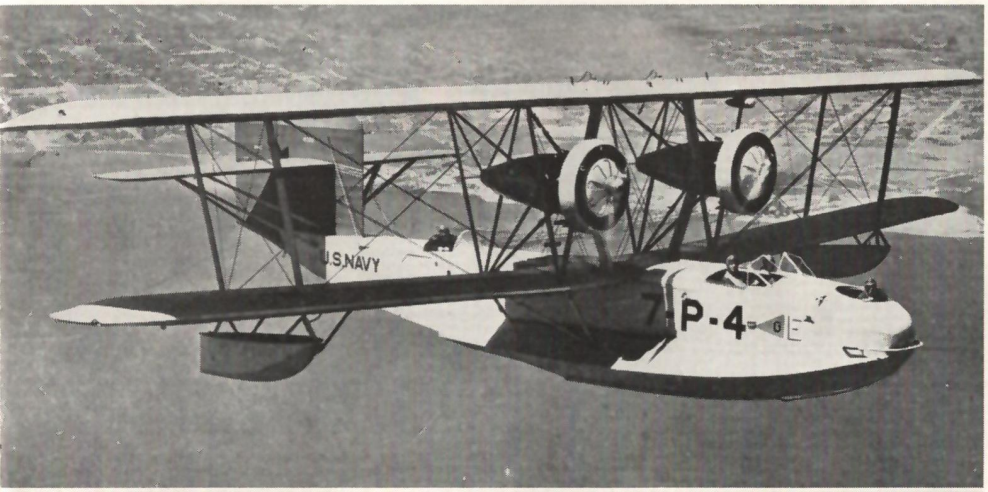
Architects went to work to lay plans for the factory. After numerous conferences with Mr. Martin, they came up with perspective drawings of the layout. They showed a tremendous factory, airport, hangars. An ambitious project indeed!

"Of course, we will build only a small section of it now," Mr. Martin confided, "but it is our master plan for the future."

Today that 1928 drawing hangs on a wall of the Administration Building. It is a fairly accurate picture of the Martin factories of 1943, except it is a bit modest —the Army Division is not even on the original plan! And all of that took place in fifteen years!

The first Martin unit was a single long, one-story, daylight structure. It was an entire airplane factory in 1929, but it was ultimately to be only a shop in the full

[*Continued on page 18*



MOVE TO BALTIMORE. *Above is the original factory of The Glenn L. Martin Company as it looked in 1932. At left are first two models produced in the new plant for the Navy: the PM-1 (at top) and the BM-1.*

SOMETHING NEW ADDED. New red, white and blue racks for Stars and Marauders have been placed at all main exits. Josephine Catalano, Raw Stores, was one of the first to use the new system of distribution.

CHAMPION MILKMAID. Champion milker of Nebraska in 1939 and national champion in 1940, Antoinette Marie Rumbel, Modification, has abandoned cows for bombers until the war is over.

SKY JOCKEYS. These crac
ing Command took time out
taken. Delivering B-26's to t
Nebraska Company is keepir

MARTIN BOMBERS. Representing the Martin-Nebraska plant, these boys swing into action like a bunch of B-26's. Standing, from left to right, are Coach Pratt, Manager Riherd and Recreational Director Campbell.

FIRE EATER. Fire
veteran of the Omal
keeps the threat of
at the Nebraska plan

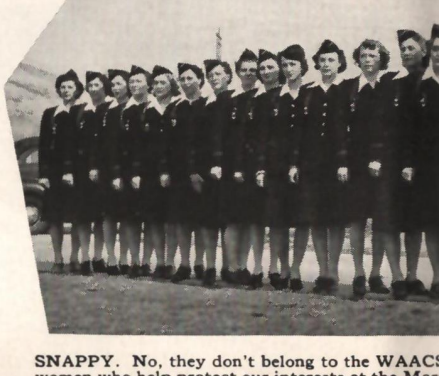
SISTER ACT. Lily and Nettie Lopez, Wing Assembly, first shift, look as much alike as two peas in a pod. They're not twins, but their close resemblance has fellow workers guessing.

ONE THORN, 11 ROSES. The Nebraska
siders himself one of the more fortunate m
pictured above with the 11 feminine mail ca
his belief.

RECORD BREAKERS. These men, led by Crew Chief Ralph Orduna, center, have set a new mark on the 'splice fixtures. They do a job today 13 hours faster than the former standard time required.

BIG GUY, LITTLE FELLER. Verlin Kerns, a 6-foot 3-inch, 225-pounder lends an ear to a bit of wisdom from the lips of 4-foot 11-inch Cecil Johnson. They both help get 'em flying at Modification.

NO AMATEUR. Johnny Morris, former golf pro and nationally known tournament competitor, has set aside the mashies for the duration. He's helping get 'em flying in the Production Department.



SNAPPY. No, they don't belong to the WAACS
women who help protect our interests at the Mar
group is a supplement to the guard force which nu

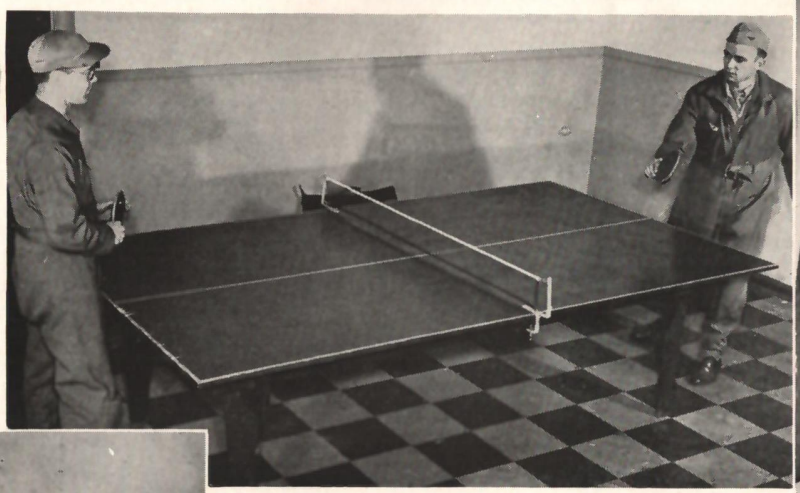
k members of the AAF Ferry-
recently to have their picture
he Army is their job, and the
g them busy.

GOOD-BYE AND GOOD LUCK. A pilot's pilot and a swell guy, Major W. H. Frederick, former AAF representative, has been transferred to the district offices at Wichita. He'll be missed by Martineers.

SNAPPY. Three types of uniforms made available for Martineers at Nebraska are modeled here by Marcella Scarpello, Harriett Hult and Ruth Greenland. The suits are cool, comfortable and light blue.

Chief H. E. Sullivan,
a Fire Department,
blazes under control
t.

BETWEEN FLIGHTS. Test Pilots R. E. Heidel, left, and Dave Greenwald take time out for a round of ping-pong in the pilots' lounge at Hotel de Gink. The sport is a favorite among the Nebraska Company pilots.



RECRUITS ON TOUR. New employees are taken for a quick run through the plant at the Nebraska Company. Here, Contact Woman Lela Warren is telling a group of new employees what makes a B-26 tick.

ompany's chief mail clerk, Bill Irons, con-
embers of the Martin organization. He is
riers in his department, reason enough for

FAREWELL PARTY. Bessie Lalich, Modification, was hostess to a group of Martineers and their wives and husbands recently at a farewell party for Don Olson, Production. Don has joined the Army Air Forces.

S or the WAVES or the Rockettes. These are the
tin-Nebraska Company plant. This smart looking
mbers hundreds.

PERFECT FIT. Glyn Miller, one of the Nebraska Company's test pilots, tries on a new-type parachute. Former stunt man Billy Hamilton, an expert chute rigger, helps adjust the straps.

STILL FIGHTING JAPS. Wounded in the Battle of Midway, Fred Noe is still carrying on the fight. On board the *Yorktown* when she was sunk, he knows what bombers can do. He's an inspector at Modification.

Shangri-La Visited

Again the Omaha Chamber of Commerce, through its "Tribe of Yessir," entertained officials of The Glenn L. Martin-Nebraska Company, when a trip to "Shangri-La" was made at the Chamber's headquarters recently. One hundred members of the Martin organization attended the informal gathering, and heard Vice-President and General Manager G. T. Willey tell the group that "the spade work is finished and the period of making things click is now in progress at the Martin Company." He went on to say that the plant is making planes on schedule, and that it will continue to do so, or even beat the mark.

Sam W. Reynolds, president of the Chamber, lauded the Martin plant for its record. He said Omaha is aware of the difficulties, and he congratulated workers on their low rate of absenteeism.

Cullen Wright, the Will Rogers of Nebraska, addressed the meeting, as did C. S. Miller, chief accountant of Modification. W. H. Burroughs, quality manager, and Norman Stewart, factory manager, were introduced to the gathering.

★ ★ ★

Luck to You, Too

Pardon us if we pause for a brief self-administered pat on the back. But letters such as the one quoted here seem to justify it. The letter is from Pvt. Leo O. Kuhl, a former Martin-Nebraskan now stationed in Amarillo, Texas.

"This is to acknowledge regular receipt of the MARTIN STAR and the *Martin Marauder*. I want to say that it really makes a fella feel good to read news of the good old Martin factories, and that the bombers are rolling out faster all of the time. At any of the air fields around here, the Martin bombers are 1-A, and they call the B-26 a 'supercharged skyrocket'.

"Here's wishing the Omaha and all the Martin plants continued success in helping bring about victory sooner."

★ ★ ★

Busy Man

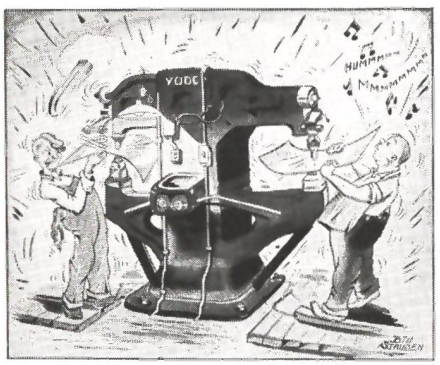
Charles H. Day, who helped the Chinese build and operate airplane factories in their war with Japan, and now manages the Modification Center at the Martin-Nebraska plant, is finding it difficult to keep up with the demand made of him to speak at clubs and public gatherings. He has six engagements scheduled now, and more pouring in at an amazing rate of speed.

Day remarked recently that the public has a dangerous feeling of complacency about the war with Japan, and a total misconception of the Japanese military power. He stated that if he could help break down this feeling, his talks would not be in vain.

Shades of Alley Oops

Women fainted—men scurried to the nearest shelter, some braver and more reckless lingered to gaze in awe at the monster loping down the parking area. It was huge and shaggy, its fur bristling in the breeze. Straight, strong, determined, it never wavered from its course. Its objective seemed to be the nearest door to the Personnel Building.

Yet no one ventured to block its path. Then silent admiration sparkled in the eyes of those nearest, when recognition struck them. There was one to be envied; he had in his possesion that which was desired by all at this time. The cruel winter winds blew defiantly around scantily clad ankles. Yet he felt it not, for, at eight below zero, Brit Thompson scoffed at the less fortunate—he was wearing his bearskin coat! And covered from ear to ankle, he trundled along, literally purring in his warmth.



"For gosh sakes, Steve, cut out that hummin'. . . it gets on my nerves!"

Lost, One Word

Wanted, one $25.00 word meaning, "The next to the last."

According to Contract Administrator C. K. Lewis, such a word exists. Furthermore, he wants to know what it is. It seems that brevity is desirable, and "why use five words when you can say it in one?"

At press time, Lewis was still thumbing through dictionaries, encyclopedias and Roget's *Thesaurus*.

★ ★ ★

Cows are Gentler

Once in a lifetime, everyone is permitted a mistake or two, and Earl Allbee, Sheet Metal, third shift, is no exception. Earl and his brother were admiring a sturdy bull, known as "Little Ferdinand," recently, when the idea struck "our hero" that to ride this animal would be real clean sport.

Out of the barn came "Little Ferdinand" and our fearless rider. But this is where the story ends. They parted ways almost as soon as they started. Earl is back at work in Modification, somewhat the worse for wear, and a sadder but wiser man.

Growing, and How

If a few figures from the mail department are any indication, "we are growing up."

In November, 1941, the mail department was organized with a personnel totaling two, one mail route with twenty-three stops, and a total of only 1,200 to 2,700 pieces of mail handled daily. Today it is a very different picture, for the staff now totals eighteen; there are 250 mail stops, and mail handled by the department averages from 18,000 to 23,000 pieces daily.

Bill Irons, who is postmaster, lists among other duties, the receiving and processing of incoming mail, the delivery of incoming mail, dispatching of outgoing mail, receiving and sending of telegrams, servicing of dictaphone records, and posting of all Company bulletins.

★ ★ ★

They Surrendered

The Purchasing Department was captured without a shot being fired Saturday morning, when two visitors arrived to renew old acquaintances and greet old friends. The guests were 2nd Lieut. Charles "Chuck" O'Connor of the Air Corps, formerly a Glenn L. Martin-Nebraska employee in Invoice Checking, and Nick Wurth, of the U.S. Navy, formerly employed here on Final Assembly. The boys are spending their leaves here, "Chuck" being stationed at Oakland, California, in combat duty. In their uniforms, the lads looked like a patriotic poster, and the whole of Purchasing fell without a murmur.

★ ★ ★

Have Own Arsenal

The Modification Center is rapidly becoming a self-sufficient unit. Now they have their own arsenal. This new department is set up for the purpose of cleaning, oiling, installing, assembling and servicing the machine guns for the B-26's brought there for modifying.

Orange Blossom Department

Edine Copsey (Assembly Modification) to Pfc. Donald N. Limpach, January 26, 1943 ★ Flora A. Strain (Assembly Modification) to Pvt. Ellis B. Boyd, December 29, 1942 ★ Patricia Crozier (12 B Stockroom Dispatch Clerk) to Don Pikell (Inspection), March 20, 1943 ★ Eloise Brown to Kenneth F. Henrich (Engineering), January 2, 1943 ★ Ardis O'Neal to Robert J. Larson (Engineering), December 27, 1942 ★ Betty Risley (Purchasing Modification) to Victor Piccole, March 13, 1943 ★ Betty Miners (Purchasing Modification) to James R. Williams, March 13, 1943 ★ Barbara Becker (Purchasing) to Boyd Laval, Merchant Marine, March 5, 1943 ★ Natalie R. Goldner, Minneapolis, Minn., to Marvin A. Jacobs (Foreman, Assembly, Modification).

Very Free Verse

Even poetry enters into the production of bombers.

For instance, there are two "feudin'" file clerks—one on first shift, the other on third. They work in Final Assembly Dispatch. Recently, E. L. K., who works on first shift, left this little reminder for the third shift clerk:

"We like our work,
We love to file,
But please don't shirk
Your little pile!"

Vera Caffee, the third shift clerk, came right back with this reply:

"With third shift work alone to do,
I would never have left this pile for you—
But this is wartime, things must be done,
So finish what's left, and let's work as one."

★ ★ ★

Back on the Job

R. W. Hubbard, flight engineer who lost his right leg in an accident recently, returned to the Martin-Nebraska Company last week and declared that he is anxious to start testing B-26's again. "I'm not much good at thanking people," he said, "but tell everybody over in the Main Plant and at Modification, that I appreciate their many kindnesses and remembrances during my stay in the hospital."

The "unconquerable" Hubbard, who has a brother, M. J. Hubbard, in the flight testing division of the Martin Company, started his flying career while connected with the Curtiss-Wright Company in St. Louis.

STORK DEPARTMENT

To Mr. and Mrs. Wilbur Downey (Welding) a girl, February 4, 1943 ★ To Mr. and Mrs. James Hagood (Machine Shop) a boy, February 12, 1943 ★To Mr. and Mrs. Clement Gunn (Armament, Final Assembly) a daughter, February 14, 1943 ★ To Mr. and Mrs. Owen J. Davis (Assembly, third shift) a son, February 21, 1943 ★ To Mr. and Mrs. Thomas I. Pierce (Contact Man, Detail Manufacturing) a son, February 23, 1943, 8 lbs. 10 ozs. ★ To Mr. and Mrs. Dan Richardson (Raw Stores) a girl, February 24, 1943 ★ To Mr. and Mrs. Wayne Gaumer (Machine Shop) a boy, February 21, 1943, 7 lbs. 3 ozs. ★ To Mr. and Mrs. James Watson (Metal Bench Foreman, Modification) a girl, 7 lbs. 6 ozs., February 28, 1943 ★ To Mr. and Mrs. Joseph Morrow (Modification, Accounting) a girl, February 28, 1943 ★ To Mr. and Mrs. H. Obermeyer (Modification Accounting) a girl, 6 lbs. 12 ozs., December 11, 1942 ★ To Mr. and Mrs. Walter Carroll (Modification Accounting) a daughter, 7 lbs. 2 ozs., February 1, 1943 ★ To Mr. and Mrs. W. F. Smith (Modification, Accounting) a son, 8 lbs. 1 oz., March 5, 1943 ★ To Mr. and Mrs. Leo E. Konat (Plant & Equipment) a girl, 7 lbs. 14 ozs., February 24, 1943 ★ To Mr. and Mrs. Jay Sudenga (Machine Shop) a girl, January 9, 1943. ★ To Mr. and Mrs. Wallace Quest (Production) a girl, February 22, 1943 ★ To Mr. and Mrs. M. E. LaCounte (Engineering) a son, October 8, 1942 ★ To Mr. and Mrs. E. D. Nunns (Engineering) a daughter, November 12, 1942 ★ To Mr. and Mrs. J. C. Yerger (Engineering) a son, January 10, 1943 ★ To Mr. and Mrs. Ray Hansen (Photo-Art) a son, March 10, 1943 ★ To Mr. and Mrs. G. Meisinger (Maintenance, Machine Repair) a daughter, February 9, 1943 ★ To Mr. and Mrs. R. Mullen (Maintenance, Elec. Helper) a daughter, February 4, 1943 ★ To Mr. and Mrs. Verne Waterman (Timekeeping, Final Assembly) a boy, 7 lbs. 9 ozs., March 2, 1943.

STARDUST

Something new has been added in the way of chapeaux. They're called "Turbans à la Martineer." The new headgear consists of any gay-colored bandana or three-cornered napkin. The girls working in the factory have discovered the hair-wave problem is simplified and the danger of having their golden tresses snagged in some machinery is kept at a minimum under the turbans.

* * *

Recruits at the Martin-Nebraska plant, especially among the women, are sometimes put through a period of initiation that either makes them or breaks them.

For instance, one girl was asked to fill out a requisition for a set of thunder bolts for lightning holes. Still others are constantly on the lookout for a certain type of termite that dines primarily on rivets. A can of propwash or a 4-foot length of scribe line have been sought on occasion by newcomers. One girl was asked to find some "countersunk bolts," but none of the bolts she could find had sunken heads. Some of the recruits have been asked to find left-handed monkey wrenches, white lamp-black, put-on tools and sky hooks.

Some of them still think that the "vital organs" of a B-26 include such things as glands, livers and vertebrae.

* * *

Regina Myers, secretary to Assembly Supervisor J. F. Burt, and Joey Lee Strickler, Assembly office stenographer, topped the list of Red Cross donators in their department. The reason for their generosity is found in the fact that both have brothers in the service.

★ ★ ★

Rigs "Life Savers"

Billy Hamilton, parachute rigger, recently played host to a reporter for THE MARTIN STAR in the parachute loft located in the Company's Hotel De Gink at the airport. The line of 'chutes displayed on the packing table gave evidence that the fliers at the Martin-Nebraska Company have only the best of equipment with which to work.

Each 'chute is thoroughly examined every sixty days. The important process of hanging the parachute in the weld for airing and drying is unusually interesting to a layman. All of the 'chutes are 100 per cent silk, and, according to Hamilton, nowhere in the world can there be found any 'chutes to compare with those used at the Nebraska Company airport.

A former professional parachute jumper, and holder of many world's records, Hamilton puts years of actual experience with safety equipment into the job of packing and servicing those "little packs" so vital to the safety of our flying men.

Workers Cash In

Suggestions pay dividends, both in cash and efficiency in production. Without going into detail concerning the suggestions themselves, the following men have cashed in on ideas during the past few weeks by taking advantage of the suggestion boxes scattered throughout the plant:

Harold Sherman, Woodshop; Arloe E. Gage, Assembly; J. W. Priborsky, Receiving; H. A. Venerable, Finishing & Plating; R. E. Phillips, Production; D. A. Drumm, Raw Stores; G. DeLong, Modification Assembly; Lamar Bray, Inspection; W. P. McDaniels, Maintenance; A. E. Hansen, Metal Bench; Edwin Gaskill, Welding; and Charles A. Watkins, Plant and Equipment.

★ ★ ★

He's On the Job

Here's a record that Martin-Nebraskans can shoot at.

Recently, employees in Detail Inspection prepared a scroll for presentation to one of the supervisors in the department.

Termed a "Salute to Al Bihler," the scroll read as follows:

"'Keep 'em Flying' is more than a slogan, it is the fruit of our endeavors. But 'all that goes up must come down,' and to provide safety for this phase of flying is the extremely important 'W' strut.

"In the 'W' strut section of Machine Shop Inspection there is a man listed on the Company records as Albert E. Bihler, known to fellow workers as 'Al.' On March 11 of this year, Al completed one year of service with the Martin Company with no absences to mar his record and only a single case of tardiness. To our way of thinking, 'That's really something!'"

★ ★ ★

Major Warren Welcomed

Martineers at Nebraska have welcomed a new Army Air Forces Resident Representative. He's Major Beverly H. Warren, a native of Texas and a graduate of Baylor University.

Major Warren, who succeeds Major W. H. Frederick, was transferred to the Nebraska plant from Wichita. Previously he had been in charge of Modification Centers at Cheyenne and Denver. A graduate of Randolph Field, San Antonio, Texas, Major Warren has been flying warplanes for the past seven years.

★ ★ ★

Hats Off!

"The Rose" goes this month to the Wing Strut Department. The Martineers working in this department have produced their quota or better, and the spirit there, according to Albert Bihler, senior inspector, is "the best."

MAN FROM MARS. *There are many weird jobs in and around the Martin-Nebraska Company plant, but none is more startling on the surface than that of operating the sand blast. Here the worker is required to dress in a suit which, from all outward appearances, was fashioned for a deep sea diver, or maybe styled for a "man from Mars." However grotesque the outer appearance, the man inside is doing a very important job toward getting these Marauders flying. The protection he wears is for the purpose of enabling him to work at long periods of time in the sand blast room, without the necessity of taking time out and thus stopping production.*
The workers—and there are several of them—pull the large hood over their heads, attach the various air hoses to the pumps and blast away at engine mounts and other welded materials, getting them ready for the paint process.

New Safety Engineers

Seventeen years with Nebraska's Department of Roads and Irrigation, the first ten of which were spent in Highway Engineering work, and the last seven in Safety Engineering, has provided H. W. Strohm with an excellent foundation for the job he now holds with the Martin-Nebraska Company.

Recently named Safety Engineer for the Company, Strohm, who is a graduate of the University of Nebraska School of Engineering, was born in Iowa, but has been a resident of Nebraska for over thirty years. For the past year he has been associated with the Safety Engineering Department of the Q. O. Ordnance Plant of Grand Island, Nebraska. It will be his job to conduct all campaigns aimed at cutting down accidents within the organization.

Artist's Model, War Worker, Ferry Pilot

Joanne Trebtoske, former secretary to R. J. Shibles, Receiving Inspection, first shift, long dreamed of the day when the U.S. Army would permit women to ferry military planes from factory to airfield, releasing men for the fighting fronts. Today her dream is coming true.

She recently left The Glenn L. Martin-Nebraska Company to become an enrollee of the Sweetwater, Texas, school for ferry pilots. Joanne may be in trousers for the duration, but she's as feminine as a scented handkerchief. Only twenty-one, she's been flying since she was graduated from the Saint Cloud Flying School of Minnesota as the first woman pilot.

From artist model, to defense worker, to ferry pilot, is a long way from her carefree days at Saint Cloud Teachers College of Minnesota, where she studied to enter the business field. After finishing college, Joanne worked as a photographer's model for two years, climaxing this work by having her picture featured in an issue of *Colliers* magazine last summer. During her career as a model, Miss Trebtoske was chosen "Queen of the Lakes" at the Minneapolis Aquatennial, an outstanding annual festival.

SHE'S GOING TO FLY 'EM. *Joanne Trebtoske, former Martineer now in the WAAF, hopes to fly the B-26 some day.*

Holder of a restricted radio operator's permit, as well as a private pilot's license, Joanne is anxious to re-enter the field of flying, where she will have an opportunity to handle multi-engine aircraft.

EX-CHAMP HELPS SMACK AXIS

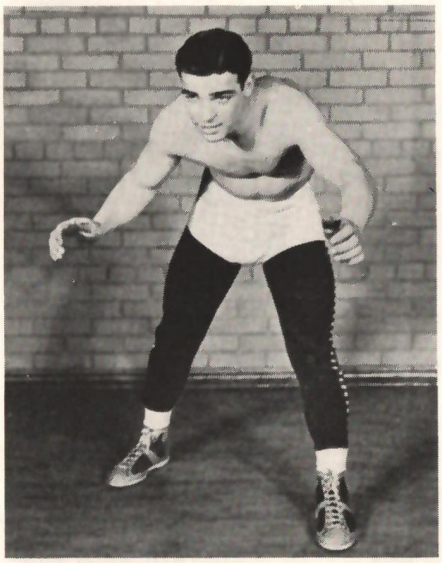
Today he is employed at The Glenn L. Martin-Nebraska Company on Metal Bench, first shift, while two sons serve in the armed forces. There was a time in the not too distant past, however, when he enjoyed the prominence and fanfare accorded a "world's champion." Kid Graves made his boxing "debut" in 1905 at the old Gowanus Athletic Club in Brooklyn, New York. He was only a fourteen-year-old, 98-pound youngster then, but he grew tougher and stronger with each fight, and climaxed a brilliant prizefighting career by winning the world's welterweight championship in 1910.

Nebraska born, Graves spent many years campaigning in the fight ring throughout the East. He met and knocked out one "Dutch" Zimmer, who weighed 204 pounds, while only tipping the scales at a mere 138½ pounds. But in the early days of prizefighting in the United States, it was not uncommon for a "good" little man to outpoint or even knock out a "good" big man.

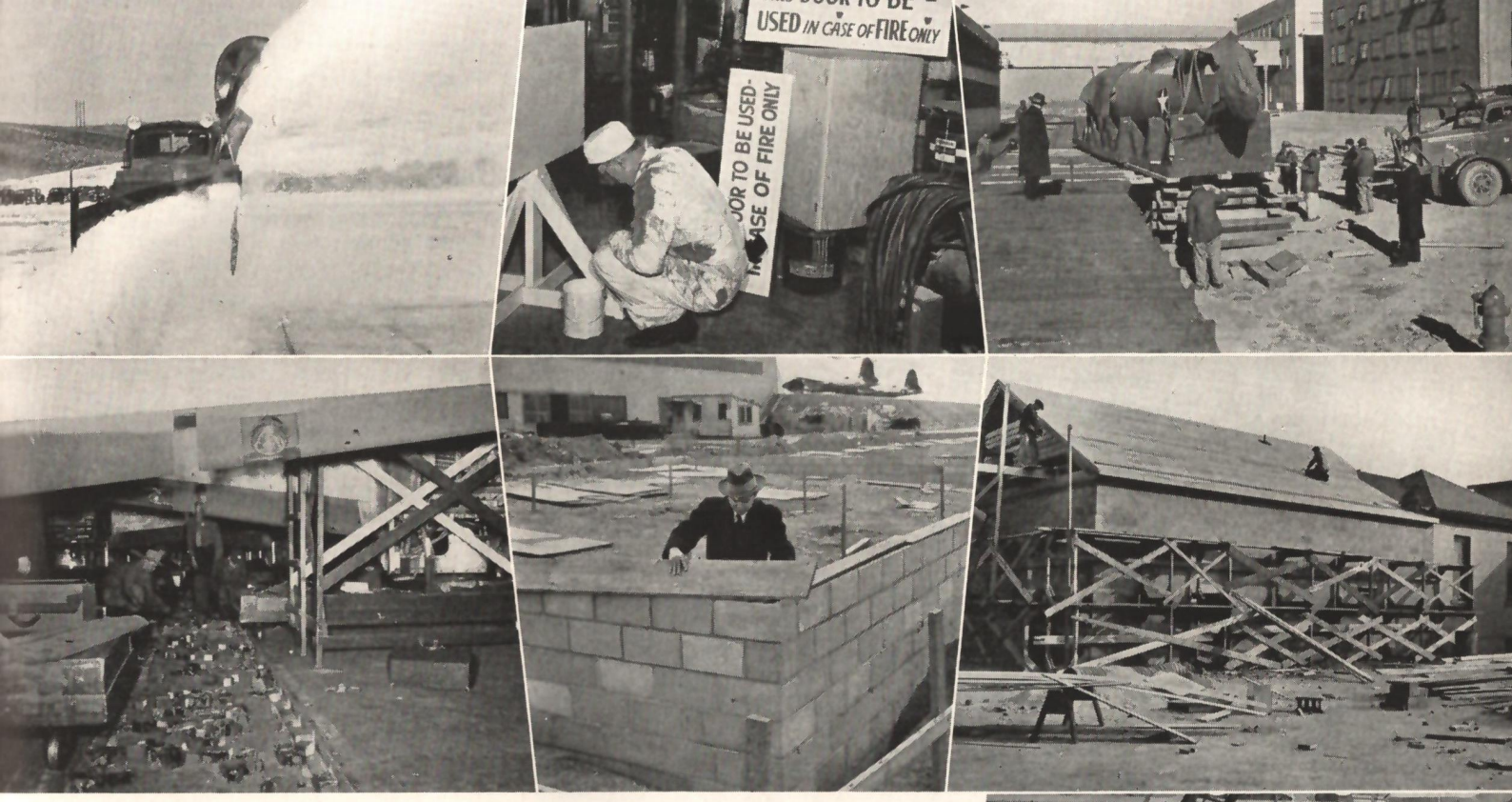
The end of a fighter's career is inevitable. Thus, in 1916, the once "unbeatable" Kid Graves met Jack Britton in a final defense of his welter crown. The results, after fifteen rounds of savage battling, though no one was on the floor during the entire forty-five minutes of tough going, was a "new champion."

Martineers Pass Goal

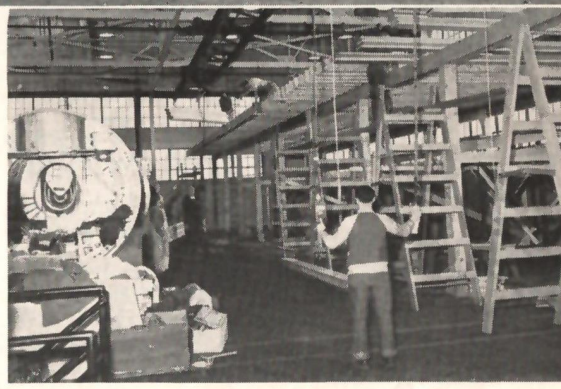
The Glenn L. Martin-Nebraska Company went over the top in the recent Red Cross drive, and proved to Omaha and Nebraska that it isn't only doing its part on the production front, but the humanitarian front as well. Don Filbert, Personnel, headed the drive, and reported that the quota of $10,000.00 would be exceeded by approximately half.



MEET THE CHAMP. *Joe Scarpello, Final Assembly, third shift, holds title to the National AAU wrestling championship in the 165-pound class. A top flight football player, he's confining his efforts to building bombers now.*



THEY NEVER REST. *The duties of the Field Department are legion. Here are a few pictures depicting some of that busy department's activities. Left, above, one of the Nebraska Company's snow plows is seen clearing off the runways on the airport, making it possible to carry on flight tests. W. M. Foster, center above, is one of the men responsible for the scores of signs posted by the Field Department. An old A model B-26 goes for a ride. To the right above, the Field Department is pictured handling the difficult task of loading it on a flat car. Necessary installations for a new assembly line are being made by the Field Department in the view at the left in the second row of pictures. Sam Amato, Building and Field engineer, looks over one of his department's construction jobs in the center picture. Want a new roof or some repairs made? Call the Field Department, and they'll do a good job of it, such as is being done in the picture at the right above. They're always building, and the picture at the right is a fair example of the type of work done by the Field Department.*



"Let Sam Do It" . . . That's What They Say in Omaha

When there's a job to be done around the Glenn L. Martin-Nebraska Company, it has become popular for Martineers to say "Let Sam do it," and strangely enough, Sam does it—and does it well.

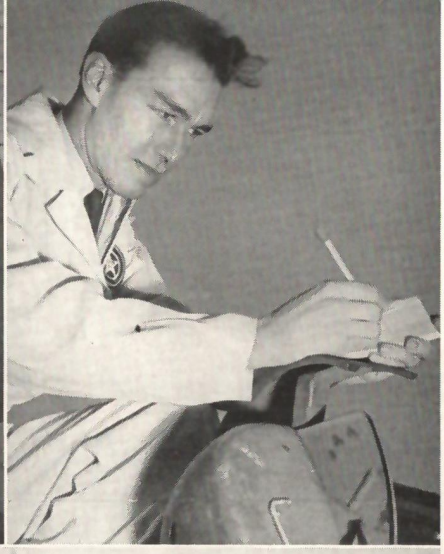
Sam Amato is chief of the Building and Field Department. His job takes in more diversified responsibilities than any other job at the Martin-Nebraska Company. Each duty performed by this important division of the Plant and Equipment Department is vitally connected with the building of B-26's. It is not known by the average worker just what this seldom-mentioned group of skilled workmen are called upon to do.

Just for an example, the maintenance of the field and runways, the planting of grass seeds and caring for the lawns, the maintenance of all highways and roads in and around the plant, the construction of all emergency offices, foundations for new buildings, the painting and servicing of all road and exit signs are listed among the various activities of this busy department. But these tasks represent only the beginning of the long list of jobs that are assigned to Sam and his boys.

Among other things, Sam has set up a complete woodshop for the servicing and repairing of office equipment. This service and repair work has reached amazing proportions, according to Amato, and the job's getting bigger every day. Major jobs, such as building an office and equipping it, have been accomplished frequently overnight.

For instance, Norman Stewart, the new factory manager, recently requested a change be made in his office. The change meant moving and rebuilding the entire office. J. J. Novotny, Plant Engineering Superintendent, called Sam in for a hurried consultation. Novotny asked Sam how long it would take to do the job. The reply was that, under ordinary conditions, it should take two or three days. When told that Stewart wanted the office ready as soon as possible, that he was anxious to get started on the important job of building B-26's, Sam promised to have the job completed by the next morning at eight o'clock. When Stewart returned to work the following day, much to his surprise, he discovered that he had a new office, completely furnished and ready for use.

Amato joined The Glenn L. Martin-Nebraska Company in January of 1942. After working as an engineer with the contractors who built the plant, he remained as the Building and Field Engineer. Since joining the Company, he has devoted much of his time and energy to bringing about the hundreds of changes and improvements always necessary in a plant the size of the Omaha concern. His is one department that can be depended upon to get a job done. To date, they haven't run into one that was too tough for them.



SERVICE. *John H. Shealey, Columbus (Red) Weeks and Clarence J. Hill (far left) may soon be at any spot on globe doing service work. To their right, Elwood C. Turner, Field Service Turret Technician, jots down notes on his discoveries. Below, a battle-worn "Marauder" used as a source of rare spare parts in New Guinea, where Martin service men have helped "Keep 'em flying."*

"Walking Encyclopedias"--- That's Service Department

"Our man in the field must be able to jump out of a business suit into overalls and back again swiftly, and conduct himself well in both types of situations," says Roland L. Sansbury, assistant to Vice-President Rowland. "He must live up to the title of 'a walking encyclopedia of aircraft information'," adds Sansbury, who is in charge of the rapidly expanding Martin Service Department now headed by former Airport Operations Manager Thomas Taylor.

In addition to being a superb mechanic, a service representative must be able to talk effectively, to discuss problems of operation and maintenance with impetuous young pilots, crusty non-coms, engineering officers, admirals, generals and other commanding officials at his station. He must send intelligent "trouble reports" back to his department at the plant from war fronts, air fields and training centers in all corners of the world.

That's quite an order, but these reports from the field are one of the basic reasons for the Service Department's existence. Its chief concern is the operation and maintenance of all Martin products: Mariners, Marauders, Baltimores and turrets. It is in the vanguard of similar activity by other plane manufacturers.

Its representatives are "the eyes and ears of The Glenn L. Martin Company."

As a result of their reports, the Service Engineering Department issues Service Bulletins, approved by Harry L. Lecompte, Service Technical Supervisor. These are written, detailed instructions for change or repair to be made in the field, and when approved by the Army or Navy, are issued as technical orders or change letters from Wright Field or the Bureau of Aeronautics.

Then it's up to Joseph T. Ogle, supervisor of Replacement Parts and Personnel, to see that necessary parts are obtained and sent to do each job in the field, and that men are there to do it. This involves not only getting men and equipment to the right place at the right time, but seeing that the men are properly trained.

Their training, preferably based on a college education, includes plenty of flight line experience at the Martin airport, plus actual field service with the Army or Navy on the planes. A service man must know all the operations, and must have enough confidence in his own work to climb into the plane and fly with the pilot. Knowledge of engineering, production and inspection are involved.

But this is only half his training. Real experience can only be gained in the field. So out he goes, armed with reference manuals written by the Service Engineering Department, and with manuals on accessories, written by accessories manufacturers.

Frequently, field men must make important decisions. Fliers' lives depend on their knowing the answers, or knowing where to find the answers. Therefore, *they can't guess!* They are the Air Force's business partners, on call 24 hours a day.

Since Martin foreign representatives can't phone or wire the factory when in a tight spot, they need still more experience, and must have ingenuity as well, working with less equipment.

Spare parts are so scarce at most of the battle fronts that service men often wait eagerly for the grim news that one of their models has been shot down. They race to the scene of a crash and tear out needed items, "just like vultures," says one of them.

Foreign representatives have officers' privileges, with the status of Technical Advisors, wear officers' uniforms, and are expected to conduct themselves like officers. As in the case of war correspondents, they are thus identified as Americans in the service, and will not be shot as spies if captured.

All Martin service men are sent out at the specific request of the Army or Navy, who, although they have splendid maintenance systems of their own, need plane manufacturers' "specialists" to supplement their own "general practitioners." Company service representatives do not usually make repairs and adjustments themselves, but must be able to supervise the Army and Navy men in that work.

With production figures mounting steadily, it is no wonder that the Martin Service Department has grown since April from a few members to its present size. Many of the staff are now overseas, and three foreign offices are being opened. Newly assigned Field Supervisors are: Roger Ward, London; John A. Wright, North Africa; and James Clifford, Australia.

President Roosevelt has ordered 300,000 planes to be built in the next five years. This means that thousands of service representatives will probably be needed for their maintenance. Such an outlook may account for the fact that the other companies come to study the still growing Martin Service Department, realizing at last that it is no more important to get 'em flying than to keep 'em in the air.

CHILD CARE IN WARTIME . . . *World-Wide Problem*

With women working in factories, pre-school youngsters must be provided with care and education. How British have solved problem.

The care of young children is a problem shared by women-at-war everywhere. It is a problem beset with many complications. Comparatively speaking, however, our difficulties are simple when we think of those of our British Allies. Here, children have to be cared for only while mothers are working at war jobs. There, parents have also to consider the protection of their children against possible bombings and the resultant physical and mental disorders.

Nursery schools and other infants' welfare services are not new to British women. Even before the war these centers were scattered all over England. Since then the work has constantly been expanded and improved in countless ways. Child care has joined the ranks of essential war work.

There are part-time nurseries open during regular school hours and wholetime nurseries open as many as 24 hours a day. They are financed chiefly by the government but supplemented by small fees from parents. With England's housing resources practically at the breaking point, providing quarters for these centers constitutes a big task. Many part-time nurseries are housed in town halls, school houses, and rest centers. Whole-time nurseries have met the crises by going completely modern and reverting to prefabricated huts. These latter are made of Maycrete —a mixture of concrete and sawdust—and consist of panels bolted together and lined inside with fiber wallboard. The local authority prepares the site and the government delivers the houses within two weeks. Local donations usually take care of equipment. Where these are not sufficient the Ministry comes to the rescue. The American Red Cross has made a valuable contribution by giving money for equipping and reconditioning part-time nurseries for evacuated children.

Whole-time nurseries are used chiefly by women war workers who punch the night-shift time clock with minds as free as their co-workers on the day shift. The children eat, sleep, are bathed and dressed, have "classes," and play games. Matrons in charge are trained nurses and girls between sixteen and eighteen have been advised to enter the Child Care Reserve to prepare themselves for nursery assistants. "Grannies and aunts" have been asked to give part of their time.

Nursery units have been set up for children who have been evacuated from target areas. The Ministry of Health and the local child welfare authorities supply equipment and paid helpers, the latter numbering one for every four children.

There is much speculation as to the effect of the wartime nursery system on the later lives of children. It is, to a great degree, a dream come true for child specialists who have long advocated for pre-school children the same specialized care and training given older ones. Several tangible results are already obvious: many children have gained weight and shown other physical improvement; others are learning discipline and self-reliance.

★ ★ ★

Different Now

Remember when there were signs on some of the cafeteria tables reading "Reserved for Ladies"? Nowadays the men are clamoring for reservations for the "Stronger Sex."

HOME FRONT. *Pre-school youngsters of mothers working at Martin's are being cared for at Victory Villa. Below, mothers are registering their children, and at right are two views of the playrooms.*

HOW TO GET MORE WEAR FROM SHOES

With all of us resurrecting shoes discarded long ago and giving very serious thought to how we "spend" our shoe coupons, it naturally follows that we want to take the best care possible of the shoes we have. Although most of us know the common-sense rules for caring for shoes, we didn't always, during times of plenty, follow them very diligently. Since this care is now a necessity, it is well to review some of the most important steps:

In the first place, all shoes need a day of rest occasionally. In fact, experts advise wearing a pair of shoes no more often than every other day. This practice is as good for the feet as for the shoes.

Clean shoes regularly, removing all dust and dirt before applying polish. Use a soft cloth on leather, a bristle or rubber brush for suede. Elk may be washed with soap and water while patent leather responds to mild soap and vaseline or a special polish.

Use shoe trees or paper stuffing to chase wrinkles.

Wear overshoes not only for your own health but that of your shoes. When shoes do get wet, however, *never* hold them near a fire. Dry them off and insert shoe trees. They dry best hanging up.

Don't neglect visits to your shoemaker. Repairs should be made before shoes become badly worn. A worn-down heel spoils the shape of a shoe. Worn soles are bad for both feet and soles.

★ ★ ★

PLENTY OF NUTRIMENT VALUE IN SAUERKRAUT AND PEANUTS

If sauerkraut is on your list of preferred foods, forget the rationing blues and consider yourself lucky. For, although "plentiful" is a word seldom used in connection with any kind of food now, there is still quite a large amount of kraut on hand. Ask for it out of the old-fashioned wooded kegs. In order to save a large crop of cabbage from waste last fall sauerkraut makers were urged to put up as much as possible. Since there was no tin for canning, they reverted to kegs.

Peanuts, which pack more food value than many of us realize, are coming to our aid. More peanuts than ever before are going into peanut butter. Serve it at your table or use it for sandwiches.

DEVISES BRACKET WHICH CUTS INSTALLATION TIME

It used to take an hour and 50 minutes to install a working platform support or bracket on the front spar of a PBM-3 center wing. Thomas Selway, 26-year-old veteran of four years' service in the Surface and Floats Department, decided to do something about it. Clamps had to be put on the outer ends of the bracket and it had to be splined in with the rib at the forward and aft ends. Too much time was wasted.

So Selway devised a wood tool at his home which cuts installation time to 40 minutes. The bracket is built inside the walls of this V-shaped tool. If it fits the tool, it will fit properly onto the spar. Once built the installation problem was simple.

★ ★ ★

MODEL BUILDER PUTS EXPERIENCE IN USE

Mike Lapauski, Surface & Floats, Army Division, a Martineer of two years, has always had a deep interest in airplanes. He likes to build planes. As a boy, building model planes was his chief hobby. Six years ago, with the aid of his brother, Mike turned out his first sport job. Yes, he was ready for his first flight in a plane that he had created himself. However, due to some unbalancing of the engine he discovered he would have to wait a while longer.

Two years later, still assisted by his brother, he completed another plane, a much improved one because of his previous trials. The engine balanced to precision and a thinner, better material for wings was used.

Today, Mike is doing the kind of work in which he has always been interested. He feels it a privilege to follow-up a life long hobby by actually working on the real bombers.

—LUCILLE MANNING

★ ★ ★

Sets Unofficial Record

Bill Robinson, second shift inspector in Surface & Floats, Army Division, rolled a score of 255 to set an unofficial ten-pin record. Stopping in to bowl a game at Aero Acres the other day, he began with an 8 in the first box, got a 7 in the next, and then really let out. He made a strike in each of the following boxes to chalk up the 255.

★ ★ ★

100% Blood Donors

The War Production Drive Committee in Surface & Floats, first shift, Army Division, volunteered 100% to give blood to the Red Cross Blood Donor Project. Not to be outdone when several came up with slight colds and were turned down by the Red Cross, they produced husbands, wives, and friends to more than make up for the loss.

STUDENTS. *Future members of Inspection and Engineering are taking special courses at the Johns Hopkins University. Here they are listening to a lecture by Thomas Hubbard.*

The Cover

During the Middle Ages when battle was waged on a man-to-man basis and the chief weapon was the sword, the armorers of ancient Toledo in Spain made the finest, most flexible, most durable of them all. The possession of a "Toledo Blade" was a source of pride to those ancient warriors and are treasured items today among collector's trophies. The Martin Baltimore is such a weapon in modern warfare—sturdy, reliable, capable of downing a worthy foe when in the hands of a competent fighter.

The cover was photographed in Kodachrome over the Martin airport by W. Neal Siebold, STAR staff photographer.

★ ★ ★

RADIO SINGER MAKES BOMBERS THAT HUM

Mrs. Ruth Wilson Dashiell is a vivacious, pretty blonde who combines charm with vocal ability. A former radio singer, she is now in Final Assembly.

With the name of "Bunch of Dynamite," this pert lass from Crisfield sang over WSAL in Salisbury. Her specialty was blues singing and her theme song was "How'm I Doin'."

She has sung several times with such orchestras as Blue Barron and Gray Gordon and has also performed at club parties, churches, banquets and dances all over the Eastern Shore.

At the Glenn L. Martin Company since February, 1942, she has given up singing and can operate the Erco machine and electric drill as well as the other tools required for her job. Her husband is in the Army.

★ ★ ★

Must Be The Gremlins

George Vieller, guard at Fallsway, isn't superstitious, but can't help wondering why the number 13 plays so vital a part in his life. He was born on a Friday, the 13th, his mother died on April 13, his son was born on May 13th, and there are 13 letters in his name.

Practices What She Preaches

Evelyn Karpovitch, Surface and Floats, Plant 1, was moved by the "Sleeping Tool" campaign. When she arrived more than a year ago she was prepared for mechanical work with this new set, but her superiors discovered she had an uncanny knack for remembering numbers, so was placed where she handled parts and found no need for her kit. Today the tools are in service in the hands of several of her S & F colleagues, present from her.

★ ★ ★

Box Kites to Bombers

[*Continued from page 9*]

scheme of things. Today it is "A" Building of Plant 1.

The new plant was still under construction when the Company first moved to Baltimore. Manufacturing operations had to go on, so Martin leased space in the Canton warehouses—space which now is one of the divisions of the Baltimore group.

It was at Canton that work was started on the BM-1—the first practical dive-bomber. It was with a fleet of these ships, carrying 1,000-pound bombs, that the United States Navy developed the tactics which the German Luftwaffe was to copy with world-shaking results a few years later.

So new were ships and technique that the first two airplanes of this great line crashed, one killing Ed Ritchie, crack Navy test pilot, and the other carrying Ken Ebel, one of the world's greatest test-pilots and now vice-president of engineering, within a few hundred feet of the ground before he could shake free and crack his 'chute. From both of these accidents came engineering knowledge that was to be invaluable to military airplanes and aviators.

The major portion of the BM-2 (second edition of the BM-1) contract was completed at the new Middle River plant. At the same time, Martin began production of another new type for the Navy—the PM-1, a twin-engine patrol boat designed for coastal and ocean patrol and protection. As many of these lithe craft were built for the Navy, they marked Martin as a manufacturer of naval flying boats which ultimately were to develop into large ocean-crossing ships packing heavy loads of bombs on long-range missions.

Meanwhile, important developments were afoot. Martin was working on a ship that was to revolutionize military aviation and render obsolete practically all of the world's aircraft.

[The Martin B-10 and its impact on military aviation will be described in the next chapter.]

A BOMBER IS BORN

PLANNING THE JOB

Copyright 1943, The Glenn L. Martin Company

DESIGNING a Martin bomber and building it in quantity is a task that calls for close teamwork among the four major departments of the organization. Stated with disarming brevity, here is how the job divides up among the four major departments, each of which in turn parcels its task among its numerous branches:

Contract Administration secures the contract to build the plane and administers the financial transactions that are part of such a gigantic operation. Engineering designs the plane, first in broad outline, then in its component parts, and finally down to the tiniest detail. Manufacturing assembles the tools and materials, schedules the work in the shops, and actually builds the planes. As detail parts flow together into sub-sub-assemblies, which in turn grow into sub-assemblies, major assemblies, and completed planes, Inspection certifies that each job is done with traditional Martin workmanship.

Last month, on this page, we described how Engineering goes about its job of designing the plane. Working in close contact with representatives of Manufacturing and Inspection, the engineers first design an airframe that will carry the equipment and deliver the performance the customer wants. Next, with Manufacturing and Inspection working in ever closer conjunction with Engineering, the plane is laid out in its major parts, and a "manufacturing breakdown" created. The final step is to design the components of these major parts in all their details.

Meanwhile the job of assembling the materials and tools and scheduling the use of them out in the factory is going on full blast, and it is that tremendous job of which we give an over-all picture this month. The task is so big, so complicated, and involves the work of so many branches of the Manufacturing organization, that no attempt is made to describe in detail what each particular branch does. Instead, the activity is classified under the three general heads of materials, tools, and production schedule. The Manufacturing Department experts responsible for gathering the materials, preparing the tools, and arranging the schedule of the actual building of the planes are, as already indicated, in on the job from the time the work of laying out the plane begins, and are busy with their tasks throughout the contract.

Beginning early in the design of the plane, they take into account what parts are to be furnished by the Government, what assemblies are to be made up by subcontractors, what parts are to be made here in our factories, and what raw materials and procurement items must be bought to make them with.

Usually furnished by the Government are the power-plants, the propellers, the radio and some other instruments, the guns, the bombsights, and some other parts of the plane. A group within the Martin organization, working with Government officials, sees that the equipment flows in as it is needed to go on the planes.

Meanwhile it is being decided which parts of the plane are to be subcontracted. Each phase of the process of manufacturing a part is reviewed, and in general the parts most difficult to make are assigned to our own factory. In that way our own experts and specialists are always at hand to handle any difficulties that may come up.

To manufacture the parts to be made outside the factory, the best available manufacturers are chosen. Expediters, of which Martin has a corps covering the country, work with the subcontractors and often help them with the procurement of raw materials, tools, equipment and supplies. Expediters also see that the subcontracted items flow to our factory on schedule—itself a major undertaking in these days of materials rationing and overloaded transportation lines.

Drawings of the parts and assemblies to be made here in our factory are meanwhile being studied with three objects in mind: the planning of the manufacturing process, the design, building or obtaining of the necessary tools, and the purchase of the raw materials needed.

As the manufacturing process is planned, operation cards are written for each detail, sub-sub-assembly, sub-assembly and major assembly. Tool designers design the special tools that will be needed, most of which will be made here in our own toolroom. Some will, however, be subcontracted to outside tool vendors: these will be tools of a nature requiring special equipment to build, such as large boring mills and planers we do not have in our shops.

At the same time the use of our factory facilities is being expertly scheduled. Machinery and fixtures are arranged, and many incidental problems such as the routing of conveyor lines decided. Work schedules are skillfully planned so that detail parts flow easily into sub-sub-assemblies, which in turn converge into sub-assemblies, which in their turn become major assemblies and then completed airplanes. The job takes a great deal of planning, but it pays big dividends in the smooth flow of bombers out the doors of Final Assembly.

Meanwhile another major job is in progress. That is the purchasing and storing ready for use of the raw materials from which the parts of the plane made here will be manufactured. These include sheets and bars of aluminum and steel, sheets of plexiglass, tons of such items as bolts, nuts, cleco clamps, forgings, castings, and extrusions. Obtaining such items is of course in these days a tremendous problem. As in the case of subcontracted items, sources must be found and tapped. Expediters must speed up the process of the flow of these materials to the factory, often locating both the materials and the means of transportation to get them here. At least for the present, the day of the salesman able to provide materials instantly and get them right to your doorstep is over, as warplants, like everyone else, know only too well.

Even with the materials and tools ready and the parts flowing into completed planes, the planning job is by no means finished. Contact with the enemy will cause the customer to ask for dozens of changes in the new model; our own engineering and manufacturing experts will suggest others. These must be incorporated into the planes without slowing production, and require the same type of skilled planning which has made the smooth flow of planes up the line possible in the first place.

On this page will be described next month the actual manufacturing process of taking materials and parts in one door of the factory and rolling finished planes out the other.

They're making SCRAP..

..are you collecting it?

ROARING IN with pursuit-plane speed, sowing devastation with heavy firepower and destructive bombload, the R.A.F.'s Martin bombers helped reduce Axis mechanized equipment to heaps of twisted scrap. That scrap is in Africa—beyond our reach. America desperately needs scrap here and now to charge this country's blast furnaces and help build more and more planes, tanks, trucks, ships, guns and bombs to continue carrying the fight to the enemy.

☆SCRAP IS VITAL TO VICTORY. If you have even a few pounds of scrap metal in your home, you are aiding the Axis. If you think you have given all your scrap, look again more thoroughly. The scrap situation grows more acute each day, as reserves dwindle and the demand increases. Think of each piece of metal as guns to defend your home . . . as armor plate to protect your friends and relatives on the fighting front. Get your scrap into the fight . . . now.

THE GLENN L. MARTIN COMPANY, BALTIMORE, U. S. A.

Beyond the War's End

From stern sacrifice on the battle fronts and the home front, a great post-Victory world is being built . . . a world of new discoveries, new abundance. For instance, Martin has designs for giant airliners of 125 tons . . . is planning others of 250 tons and more. These are ships that will bring the whole world within hours of your doorstep . . . ships that will build for a truly permanent peace by making all nations neighbors. In war or in peace, keep your eye on the Martin Star!

Martin
AIRCRAFT

Builders of Dependable Aircraft Since 1909